

SEQUENCE LISTING

<110> Case, Casey C.
 Zhang, Lei
 Sangamo Biosciences, Inc.

<120> Functional Genomics Using Zinc Finger Proteins

<130> 019496-002000US

<140> 09/395,448
 <141> 1999-09-14

<150> 09/229,007
 <151> 1999-01-12

<150> 09/229,037
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<160> 23

<170> PatentIn Ver. 2.1

<210> 1
 <211> 25
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:exemplary motif
 of C2H2 class of zinc finger proteins (ZFP)

<220>
 <221> MOD_RES
 <222> (2)..(3)
 <223> Xaa = any amino acid

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 <221> MOD_RES
 <222> (4)..(5)
 <223> Xaa = any amino acid, may be present or absent

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<400> 1
 Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

09925795.000001

<400> 12
Leu Arg Gln Lys Asp Gly Gly Gly Ser Gly Gly Gly Ser Glu Arg Pro
1 5 10 15

<210> 13
 <211> 97
 <212> PRT
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence:ZFP sequence in control construct

<400> 13
 Val Pro Gly Lys Lys Lys Gln His Ile Cys His Ile Gln Gly Cys Gly
 1 5 10 15
 Lys Val Tyr Gly Gly His Asp Thr Val Val Gly His Leu Arg Trp His
 20 25 30
 Thr Gly Glu Arg Pro Phe Met Cys Thr Trp Ser Tyr Cys Gly Lys Arg
 35 40 45
 Phe Thr Ala Ala Asp Glu Val Gly Leu His Lys Arg Thr His Thr Gly
 50 55 60
 Glu Lys Lys Phe Ala Cys Pro Glu Cys Pro Lys Arg Phe Met Leu Val
 65 70 75 80
 Val Ala Thr Gln Leu His Ile Lys Thr His Gln Asn Lys Lys Gly Gly
 85 90 95
 Ser

<210> 14
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:designed ZFP construct (from KpnI to BamHI) targeting 9-base pair target site in VEGF promoter

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 <221> CDS
 <222> (2)..(292)

<400> 14
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 Val Pro Gly Lys Lys Lys Gln His Ile Cys His Ile Gln Gly Cys Gly
 1 5 10 15
 aaa gtt tac ggc cgc tcc gac aac ctg acc cgc cac ctg cgc tgg cac 97
 Lys Val Tyr Gly Arg Ser Asp Asn Leu Thr Arg His Leu Arg Trp His
 20 25 30
 acc ggc gag agg cct ttc atg tgt aca tgg tcc tac tgt ggt aaa cgc 145
 Thr Gly Glu Arg Pro Phe Met Cys Thr Trp Ser Tyr Cys Gly Lys Arg
 35 40 45

0925795.080901

ttc acc aac cgc gac acc ctg gcc cgc cac aag cgt acc cac acc ggt 193
 Phe Thr Asn Arg Asp Thr Leu Ala Arg His Lys Arg Thr His Thr Gly
 50 55 60

gag aag aaa ttt gct tgt ccg gaa tgt ccg aag cgc ttc atg cgc tcc 241
 Glu Lys Lys Phe Ala Cys Pro Glu Cys Pro Lys Arg Phe Met Arg Ser
 65 70 75 80

gac cac ctg tcc aag cac atc aag acc cac cag aac aag aag ggt gga 289
 Asp His Leu Ser Lys His Ile Lys Thr His Gln Asn Lys Lys Gly Gly
 85 90 95

tcc 292
 Ser

<210> 15

<211> 97

<212> PRT

<213> Artificial Sequence

<223> Description of Artificial Sequence:designed ZFP
 construct (from KpnI to BamHI) targeting 9-base
 pair target site in VEGF promoter

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Val Pro Gly Lys Lys Lys Gln His Ile Cys His Ile Gln Gly Cys Gly
 1 5 10 15

Lys Val Tyr Gly Arg Ser Asp Asn Leu Thr Arg His Leu Arg Trp His
 20 25 30

Thr Gly Glu Arg Pro Phe Met Cys Thr Trp Ser Tyr Cys Gly Lys Arg
 35 40 45

Phe Thr Asn Arg Asp Thr Leu Ala Arg His Lys Arg Thr His Thr Gly
 50 55 60

Glu Lys Lys Phe Ala Cys Pro Glu Cys Pro Lys Arg Phe Met Arg Ser
 65 70 75 80

Asp His Leu Ser Lys His Ile Lys Thr His Gln Asn Lys Lys Gly Gly
 85 90 95

Ser

<210> 16

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:PCR primer
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 <223> Description of Artificial Sequence:PCR primer
 VEGFD2

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<213> Artificial Sequence

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<223> Description of Artificial Sequence:PCR primer
VEGFD

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26

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